

HAPPY 3RD BIRTHDAY CODE.GOV!

JOSEPH CASTLE



ABOUT ME

- ▶ Product/team lead for Code.gov
- ▶ GSA 15yrs, Army vet
- ▶ White House experience
- ▶ PhD Candidate at VT



ABOUT THE TEAM

- ▶ Five members, mix of feds and contractors
- ▶ Roles include open source expert, agency outreach, engineering, and communications



WHERE IT ALL BEGAN

U.S. FEDERAL SOURCE CODE (1945–2018)



- ▶ Grace Hopper's work the Harvard Computational Laboratory was a precursor to open source software (OSS)
- ▶ U.S. government labs using and modifying code
- ▶ Federal agencies consume OSS but publish less

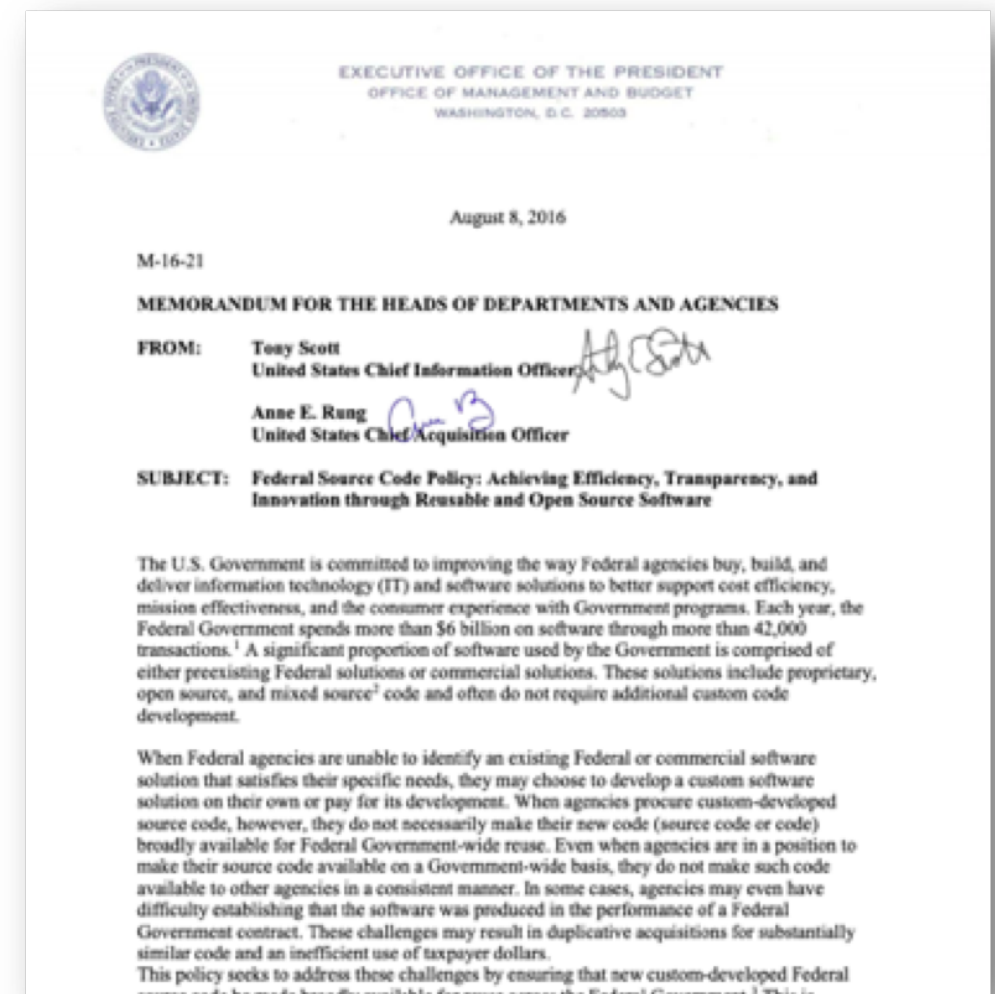


A large portion of federal agencies utilize closed source software that limits sharing and collaboration, supporting technology operations with costly procurements, and other inefficient processes.

- ▶ Johnson & Sears, 2017

FEDERAL SOURCE CODE POLICY (FSCP)

- ▶ Federal government spends \$6B annually on software
- ▶ In August 2016, the White House published M-16-21 aka the FSCP
- ▶ Agencies develop source code policy, update acquisition language, and inventory code
- ▶ Release at least 20% as OSS



WHERE WE ARE NOW

ABOUT CODE.GOV

- ▶ 100% open source project
- ▶ Website
- ▶ API
- ▶ Agency and public outreach
- ▶ Event participation

Sharing America's Code

Unlock the tremendous potential of the Federal Government's software.

FIND CODE

Search for federal open source software projects and usable code

e.g. JavaScript, NASA, web standards

Go

Developers

The Code.gov website is developed publicly on GitHub. Learn how to [contribute here](#). Help improve America's Code by exploring Open Tasks.

Explore Open Tasks

Connect with Us

Have questions or feedback? [Open an issue](#) on our open source repository.

Want to receive our monthly newsletter?

Sign Up Here

Agency Partners

Federal agency partners use Code.gov to share usable open source code, promote open source projects, and track compliance with federal open source policy.

Compliance Dashboard

About Code.gov

Code.gov is the federal government's platform for sharing

Open Source News & Events

Overview

Introduction

Tracking Progress

Compliance

Agency Compliance

How to Procure Software

How to Inventory

Validate Schema

Open Source Pilot

Introduction

Tools and Resources

How to Measure

Licensing



Environmental Protection Agency




Partially compliant

-  Agency policy is consistent with the Federal Source Code Policy.
-  Agency has open sourced greater than 20% of their custom developed code.
-  Agency has inventoried more than 50% of new custom code.



General Services Administration

Fully compliant

-  Agency policy is consistent with the Federal Source Code Policy.
-  Agency has open sourced greater than 20% of their custom developed code.
-  Agency has inventoried 100% of new custom code.



National Aeronautics and Space Administration


Fully compliant

-  Agency policy is consistent with the Federal Source Code Policy.
-  Agency has open sourced greater than 20% of their custom developed code.
-  Agency has inventoried 100% of new custom code.



National Science Foundation

Partially compliant

-  Agency policy is consistent with the Federal Source Code Policy.
-  Agency has open sourced greater than 20% of their custom developed code.
-  Agency has inventoried more than 50% of new custom code.



Nuclear Regulatory Commission

Partially compliant



Code.gov Tech

Build your own tools using our API to access Code.gov data. Configure your own version of code.gov.

Overview

API Basics

Routes and Field Reference

API Key

Configure Front-End

Feedback

API basics

The Code.gov API is a GET API. With this API, you will be able to explore the software projects that federal agencies have published in accordance with the [Federal Source Code Policy](#).

There are two basic endpoints:

- `/repos` : this endpoint will let you query all federal repositories that have been indexed by us.
- `/terms` : this endpoint will let you query all terms we have indexed as part of our data harvesting process. These terms will help you in your search efforts.

Additional Notes

The rate limit for the API is currently 5,000 calls/day and 5 calls per 5 seconds. As we move forward and understand the impact of usage of the API, we will adjust the limits accordingly as well as allow for individual users with specific needs to have customized rate limits appropriate to their use.

Example URL

The URLs provided below are for initial browsing of API data. This DEMO_KEY will not work after a certain number of attempts. Users can request a personal key from [api.data.gov](#). The personal key will have more data access capabilities.

- https://api.code.gov/repos?api_key=DEMO_KEY
- https://api.code.gov/terms?api_key=DEMO_KEY

Output

The output data will be in JSON format.

API Clients

We have a couple of API clients on our roadmap.

 An official website of the United States government [Here's how you know](#) 

There are 65 open tasks

Filter

Federal Agency

- ☐ Consumer Financial Protection Bureau
- ☐ Department of Defense
- ☐ Department of Energy
- ☐ Department of Health and Human Services

[Show more](#)

Skill Level

- ☐ Beginner
- ☐ Intermediate

Explore Open Tasks

API Agency Issues Report Accuracy?

Agency: [General Services Administration](#) **Last Updated:** 8/19/2019

Languages: Not Available **Type:** Bug **Skill Level:** Beginner **Effort:** Small

Add broken links to status report

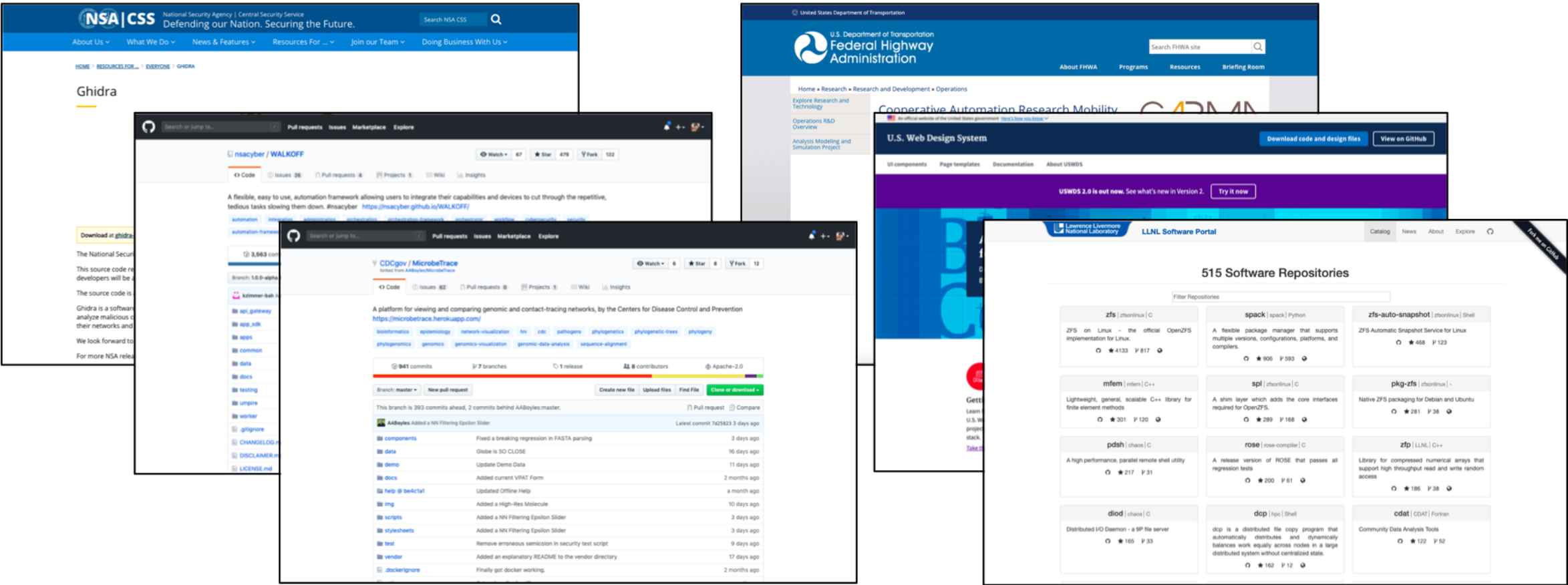
Agency: [General Services Administration](#) **Last Updated:** 4/30/2019

Languages: Not Available **Type:** Enhancement **Skill Level:** Intermediate **Effort:** Large

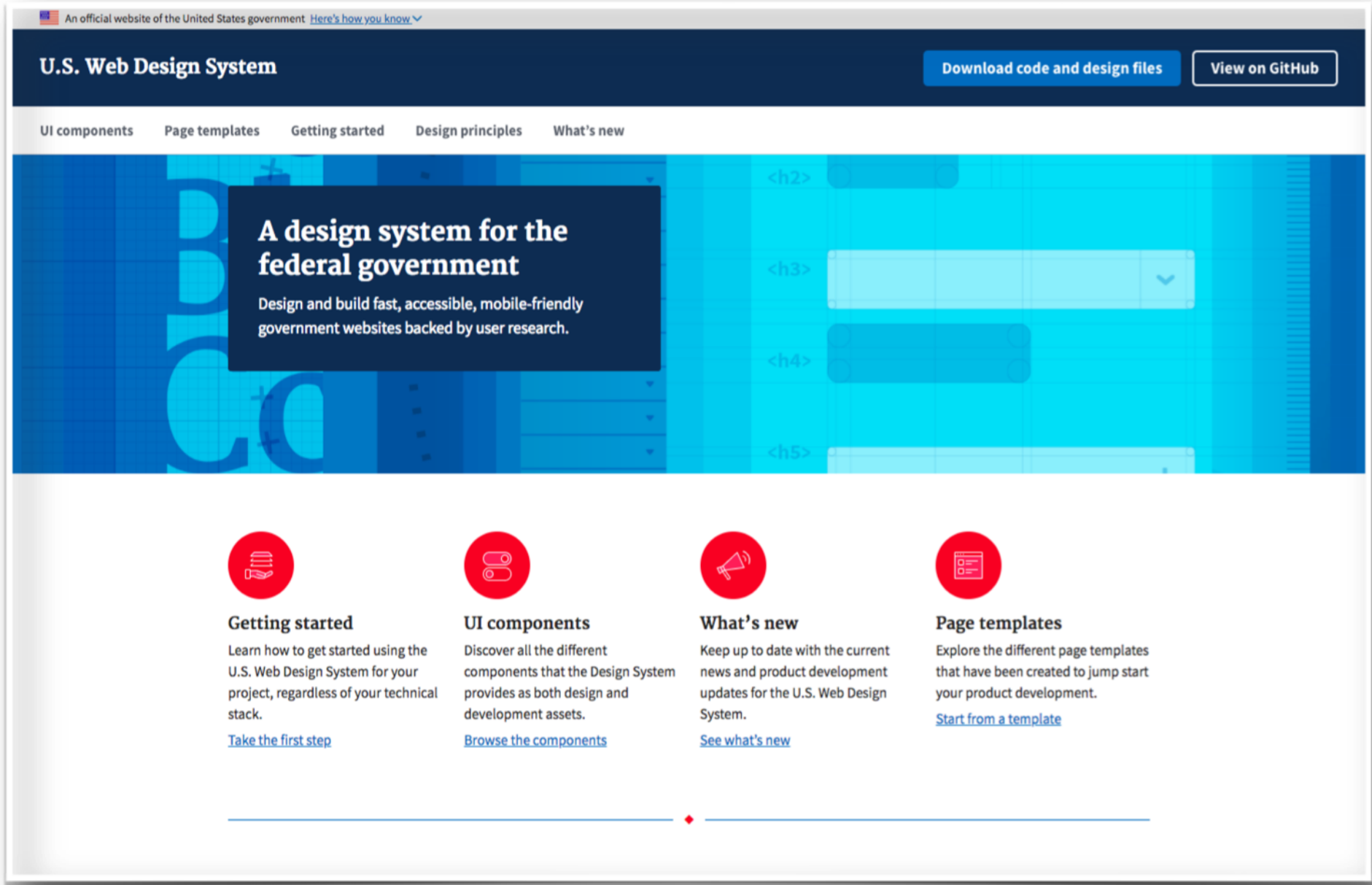
multilingual support?

Agency: [General Services Administration](#) **Last Updated:** 12/25/2018

Projects on Code.gov



GSA's US Web Design System



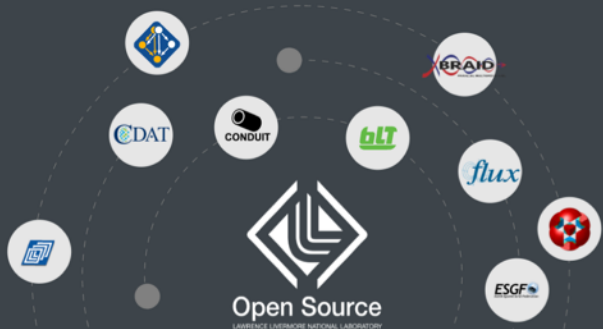

LLNL's Open Source Software

Lawrence Livermore
National Laboratory

LLNL Software Portal


RADIUSSNewsAboutExplore

Fork me on GitHub







Open Source
LAWRENCE LIVERMORE NATIONAL LABORATORY


Welcome to the LLNL software portal—a hub for our open source projects.
Our [full catalog](#) is updated regularly as repositories are added or modified.



APPLICATIONS





Browse scientific simulation codes and IT management tools


	MacPatch	67 ★ ⓘ
	cardioid	15 ★ ⓘ
	Task-Time-Tracker	10 ★ ⓘ
	coda-calibration-tool	5 ★ ⓘ



BUILD TOOLS





Automate and simplify complex dependencies and deployments

	spack	1173 ★ ⓘ
	blt	83 ★ ⓘ
	shroud	31 ★ ⓘ
	uberenv	3 ★ ⓘ



DATA MANAGEMENT & VIZ

Manage visualizations with robust features and configurable analysis

	zfp	224 ★ ⓘ
	glvis	77 ★ ⓘ
	visit	58 ★ ⓘ
	conduit	48 ★ ⓘ

NSA's Open Source Software

NSA-Developed
Open Source
Software

Welcome to the National Security Agency's Open Source Software Site. The software listed below was developed within the National Security Agency and is available to the public for use. We encourage you to check it out!

Search for repos...

Apache accumulo

Apache Accumulo

P

281

★

727

Apache NIFI

Automates the flow of data between systems. NiFi implements concepts of Flow-Based Programming and solves common data flow problems faced by enterprises.

AppLocker-Guidance

Configuration guidance for implementing application whitelisting with AppLocker. #nsacyber

P

43

★

120

AtomicWatch

Intel Atom C2000 series discovery tool that parses log files and returns results if a positive match is found. #nsacyber

P

12

★

16

beer-garden

The beer-garden application

P

15

★

146

BitLocker-Guidance

Configuration guidance for implementing BitLocker. #nsacyber

P

11

★

21

Blocking-Outdated-Web-

Certificate-Authority-

CodeGov

WHERE WE ARE GOING

FUTURE DIRECTION

- ▶ Enhancements to the platform
- ▶ Studies to better understand federal OSS environment
 - ▶ Federal Source Code Study - FSCS (next slide)
 - ▶ Value of federal source code - Spring 2020
- ▶ Events - Federal Source Code Summit - April 16th
 - ▶ For feds by feds
 - ▶ 1/2 day

FEDERAL SOURCE CODE STUDY (FSCS)

- ▶ 20 of 24 CFO Act agencies participated
- ▶ Collected data through interviews and documents
- ▶ Analyzed organizational aspects to implement the FSCP and publish OSS
- ▶ Findings - most agencies see value in using and publishing OSS, agencies seeking more guidance
- ▶ Supporting development of Toolkit with process tutorials and document templates

THANK YOU!

